



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/753,080

12/29/2000

Robert J. Duncan

061473 0270172

3507

34845

7590

05/01/2006

STEUBING MCGUINNESS & MANARAS LLP  
125 NAGOG PARK  
ACTON, MA 01720

EXAMINER

PATEL, ASHOKKUMAR B

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/753,080

Applicant(s)

DUNCAN ET AL.

Examiner

Ashok B. Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1, 2, 4-8, and 10-12 are subject to examination.

#### ***Response to Arguments***

2. Applicant's arguments filed 02/13/2006 have been fully considered but they are not persuasive for the following reasons:

#### **Rejections under 35 U.S.C. § 103**

##### **Applicant's argument:**

"Applicants believe that the Examiner is not affording patentable weight to the term 'remote invocation method', as evidenced by the Examiner's combination of art in the rejection."

"The rationale provided by the Examiner is that 'as Moore is in need of 'a particular QoS' requirement...'..... Accordingly, Applicants fail to find the stated motivation persuasive, and submit that for at least this reason, the rejection is improper and should be reversed. There is no desirability in the combination of references provided by the Examiner."

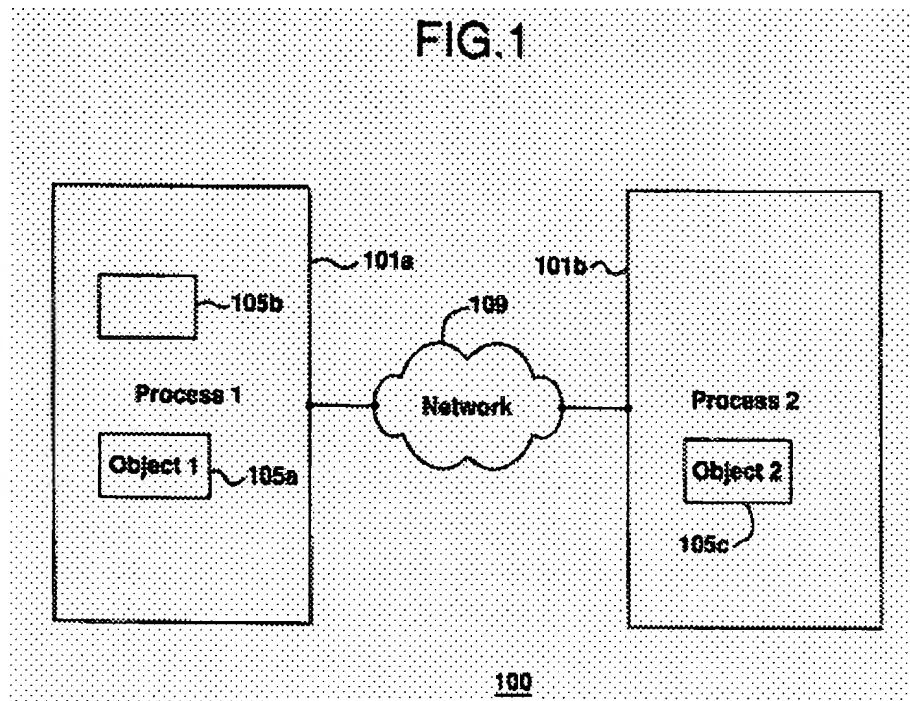
"....." this provides no solution to the problem of forwarding QoS information to "enable classification of remote method invocations" as clearly recited in the claims."

"Examiner appears to have failed. To give patentable weight to the fact that the claim is drawn to the handling of a remote method invocations, and has instead provided a reference which deals with selectively establishing label switched paths. Even if the references could be combined, Applicants respectfully submit that the resultant combination would not teach the limitations of the claimed invention."

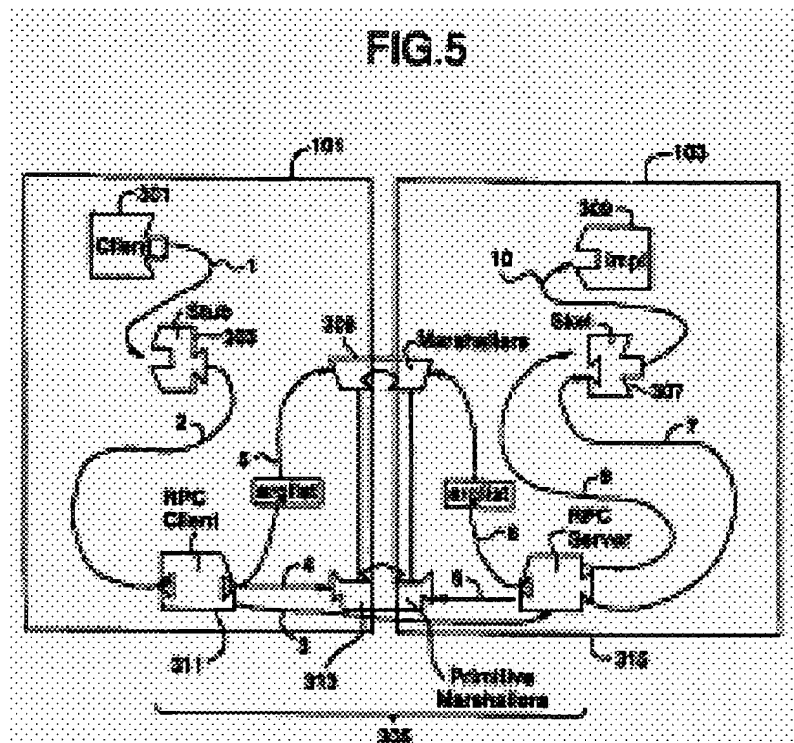
**Examiner's response:**

Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 601 (CCPA 1915). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures take as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 110 USPQ 209 (CCVA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA. 1969).

In this case, the reference Moore teaches in col. 7, line 7-14, "To effect a remote method invocation data must be communicated via the network from the first process 101a to the second process 101b, and also in the opposite direction. This communication is carried out according to one of several known communications protocols. Examples of communications protocols include RPC mechanisms over TCP/IP (such as DCE or ONC) and distributed object protocols (such as CORBA IIOP, DCOM, and Java/RMI)." In conjunction with the following Fig.1.



And then, Moore goes on teaching at col. 10, line 15-20, "FIG. 5 is a flow diagram illustrating the data flow of a remote method invocation, according to the invention. As discussed above, the remote method invocation involves two processes 101a and 101b. A client 301--existing in the first process 101a--seeks to invoke a method of an implementation object 309--existing in the second process 101b.", as stated below in Fig. 5.



However, here, Moore completely ignores the “Network” of Fig. 1 that there exists in the real world scenario.

That is why the motivation provided for combining the references during the rejection of claim 1, Examiner cited that “the capabilities of Katsube's boundary router to the “network ” of Moore as Moore is in need of “a particular QoS requirement” and “Application can have separate implementations based on QoS parameters (e.g., a secure implementation, a non-secure implementation).” such that a remote method invocation data (RMI) must be communicated via the network as Katsube's boundary router 1012 inquires the resource management unit 4010 as to whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request.

Art Unit: 2154

Katsube also teaches in col. 9, line 66-col.10 line 16, "When it is judged that it is permitted to process the received LSP set up request message as a result of the above described comparison of the message source information (and the CoS value if necessary) contained in the received message with the policy table, next at the step S2 of FIG. 3, the boundary router 1012 inquires the resource management unit 4010 as to whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request.

Thus, Katsube provides solution to the problem of forwarding QoS information to "enable classification of remote method invocations" while QoS and remote method invocations" are already taught by Moore. Thus patentable weight is given to all elements of the claim.

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. (hereinafter Moore) US 6,282,581 in view of Katsube et al. (hereinafter Katsube)(US 6, 341, 127).

**Referring to claim 1,**

Moore teaches a method for classifying a remote method invocation from a client system that initiates connections to a remote server object using a client and underlying remote method invocation transport code, the method comprising:

detecting when a connection carrying high value data for the remote method invocation is to be created on a communication channel (col. 5 lines 21-25);

using a custom socket factory to obtain flow information associated with the detected connection, and to generate a socket therefore, the socket having a socket number associated therewith; (col. 10. lines 48-53, col. 17, line 8-20);

The limitation 'high value data' is interpreted to mean all RMI connection traffic between the client and server that makes a call to the stub. This is consistent with the applicant's definition.

Moore does not explicitly teach the method of claim 1, wherein the flow information is communicated to a classifying router prior to establishment of connection using a side channel, different from the communication channel and incorporating this flow information into a differentiated services classification subsystem of the classifying router to enable proper classification of the remote method invocation.

Katsube teaches in col. 9, line 66-col.10 line 16, 'When it is judged that it is permitted to process the received LSP set up request message as a result of the above described comparison of the message source information (and the CoS value if necessary) contained in the received message with the policy table, next at the step S2 of FIG. 3, the boundary router 1012 inquires the resource management unit 4010 as to whether it is possible to secure necessary network resources such as label (and



Art Unit: 2154

bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request. When it is judged that it is possible to accept this LSP set up request, either a message indicating the acceptance of the LSP set up request (which contains an information on a label assigned to the requested stream, etc.) is returned to the boundary router 1021, or the similar LSP set up request message is transmitted from the control message processing unit 4006 to a next hop (downstream) router (such as a router 1015 in the exemplary case shown in FIG. 1) for the requested stream." And in col. 15, line 14-22, "Here, similarly as in the second exemplary case, the packet stream can be defined by either one or both of an information regarding a source of data packets (source host address, or source network address, or a set of source host address, a protocol and a port number, etc.) and an information regarding a destination of data packets (destination host address, or destination network address, or a set of a destination host address, a protocol and a port number, or an exit router of some routing domain, etc.)." Thus, Katsube teaches a boundary router's capabilities including "whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request" based on class of service and information provided by the source of data packet. Thus, Katsube teaches "wherein the flow information is communicated to a classifying router prior to establishment of connection using a side channel, different from the communication channel and incorporating this flow information into a differentiated services classification subsystem of the classifying router to enable proper classification of the remote method invocation.

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the capabilities of Katsube's boundary router to the "network " of Moore as Moore is in need of "a particular QoS requirement" and "Application can have separate implementations based on QoS parameters (e.g., a secure implementation, a non-secure implementation)." This will 'allow in the router device, a, policy information indicating a permitted starting point of a label switching path is stored, and a request message that contains a starting point information indicating a starting point node/network of the requested label switching path and a stream information indicating a desired packet stream to be transferred through the requested label switching path is received. Then, whether or not to permit the set up of the requested label switching path is judged by comparing the starting point information contained in the request message with the stored policy information, and the requested label switching path through the router device for the desired packet stream indicated by the stream information contained in the request message is set up when the set up of the requested label switching path is judged as permitted.

**Referring to claim 2,**

Moore teaches the method of claim 1, further including that the detection module provides a stub to calling applications that executes an RMI routine when called by an application (Col. 8 lines 54-63,; Col. 9 lines 1-4).

**Referring to claim 5,**

Keeping in the teachings of Moore as stated above, Moore fails to explicitly teach using the flow information to determine a differentiated service classification for the

connection; and marking traffic delivered to the connection by the classified router on the classification.

Katsube teaches in col. 9, line 66-col.10 line 16, "When it is judged that it is permitted to process the received LSP set up request message as a result of the above described comparison of the message source information (and the CoS value if necessary) contained in the received message with the policy table, next at the step S2 of FIG. 3, the boundary router 1012 inquires the resource management unit 4010 as to whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request. When it is judged that it is possible to accept this LSP set up request, either a message indicating the acceptance of the LSP set up request (which contains an information on a label assigned to the requested stream, etc.) is returned to the boundary router 1021, or the similar LSP set up request message is transmitted from the control message processing unit 4006 to a next hop (downstream) router (such as a router 1015 in the exemplary case shown in FIG. 1) for the requested stream." And in col. 15, line 14-22, "Here, similarly as in the second exemplary case, the packet stream can be defined by either one or both of an information regarding a source of data packets (source host address, or source network address, or a set of source host address, a protocol and a port number, etc.) and an information regarding a destination of data packets (destination host address, or destination network address, or a set of a destination. host address, a protocol and a port number, or an exit router of some routing domain, etc.)." Thus, Katsube teaches a boundary router's capabilities including

Art Unit: 2154

"whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request" based on class of service and information provided by the source of data packet.

Thus, Katsube teaches using the flow information to determine a differentiated service classification for the connection; and marking traffic delivered to the connection by the classified router on the classification.

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the capabilities of Katsube's boundary router to the "network " of Moore as Moore is in need of "a particular QoS requirement" and "Application can have separate implementations based on QoS parameters (e.g., a secure implementation, a non-secure implementation)." This will allow in the router device, a, policy information indicating a permitted starting point of a label switching path is stored, and a request message that contains a starting point information indicating a starting point node/network of the requested label switching path and a stream information indicating a desired packet stream to be transferred through the requested label switching path is received. Then, whether or not to permit the set up of the requested label switching path is judged by comparing the starting point information contained in the request message with the stored policy information, and the requested label switching path through the router device for the desired packet stream indicated by the stream information contained in the request message is set up when the set up of the requested label switching path is judged as permitted.

**Referring to claim 6,**

Keeping in the teachings of Moore as stated above, Moore fails to explicitly teach detecting an identity of the client making the remote method invocation, the flow information further containing this detected identity.

Katsube teaches in col. 9, line 66-col.10 line 16, "When it is judged that it is permitted to process the received LSP set up request message as a result of the above described comparison of the message source information (and the CoS value if necessary) contained in the received message with the policy table, next at the step S2 of FIG. 3, the boundary router 1012 inquires the resource management unit 4010 as to whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not,. so as to judge whether it is possible to accept this LSP set up request. When it is judged that it is possible to accept this LSP set up request, either a message indicating the acceptance of the LSP set up request (which contains an information on a label assigned to the requested stream, etc.) is returned to the boundary router 1021, or the similar LSP set up request message is transmitted from the control message processing unit 4006 to a next hop (downstream) router (such as a router 1015 in the exemplary case shown in FIG. 1) for the requested stream." And in col. 15, line 14-22, "Here, similarly as in the second exemplary case, the packet stream can be defined by either one or both of an information regarding a source of data packets (source host address, or source network address, or a set of source host address, a protocol and a port number, etc.) and an information regarding a destination of data packets (destination host address, or destination network address, or a set of a

Art Unit: 2154

destination host address, a protocol and a port number, or an exit router of some routing domain, etc.)." . Thus, Katsube teaches a boundary router's capabilities including "whether it is possible to secure necessary network resources such as label (and bandwidth if necessary) or not, so as to judge whether it is possible to accept this LSP set up request" based on class of service and information provided by the source of data packet.

Thus, Katsube teaches detecting an identity of the client making the remote method invocation, the flow information further containing this detected identity.

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the capabilities of Katsube's boundary router to the "network " of Moore as Moore is in need of "a particular QoS requirement" and "Application can have separate implementations based on QoS parameters (e.g., a secure implementation, a non-secure implementation)." This will allow in the router device, a, policy information indicating a permitted starting point of a label switching path is stored, and a request message that contains a starting point information indicating a starting point node/network of the requested label switching path and a stream information indicating a desired packet stream to be transferred through the requested label switching path is received. Then, whether or not to permit the set up of the requested label switching path is judged by comparing the starting point information contained in the request message with the stored policy information, and the requested label switching path through the router device for the desired packet stream indicated by

Art Unit: 2154

the stream information contained in the request message is set up when the set up of the requested label switching path is judged as permitted.

**Referring to claim 7,**

Claim 7 is a claim to an apparatus that carries out the method of claim 1. Therefore claim 7 is rejected for the reasons set forth for claim 1.

**Referring to claim 8,**

Claim 8 is a claim to an apparatus that carries out the method of claim 2. Therefore claim 8 is rejected for the reasons set forth for claim 2.

**Referring to claim 11,**

Claim 11 is a claim to an apparatus that carries out the method of claim 5. Therefore claim 11 is rejected for the reasons set forth for claim 5.

**Referring to claim 12,**

Claim 12 is a claim to an apparatus that carries out the method of claim 6. Therefore claim 12 is rejected for the reasons set forth for claim 6.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Katsube applied to claim 1 and further in view of Wiess (US 6, 681, 156).

**Referring to claim 4,**

Keeping in mind the teachings of the references Moore and Katsube as stated in claim 1, both of these references fail to explicitly teach wherein the side channel is implemented as a Java servlet.

Wiess teaches at page , para.[0080], "The PCs 38, 40 may employ, for example, CGI-scripts or Java Servlet for communications."

Therefore, it would have been obvious to implement the side channel as a Java servlet in the current invention because doing so would result in a platform independent module that could be used in a variety of network equipment.

**Referring to claim 10,**

Claim 10 is a claim to an apparatus that carries out the method of claim 4. Therefore claim 10 is rejected for the reasons set forth for claim 4.

***Conclusion***

**Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not



Art Unit: 2154

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp  
\*\*\*

  
John Follansbee  
SPE 2154